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# UNITED STATES DEPARTMENT OF AGRICULTURE Bureau of Plant Industry

Blister Rust Control.

Washington - April 25, 1924

#### MEMORANDUM FOR STATE LEADERS

Gentlemen:

In accordance with our agreement at the recent annual conference,

I have prepared an outline to guide you in writing up a plan of work for

your respective states. Such a plan if carefully developed will be very

helpful to this Office and bring each leader closer to the various details

of his work.

I am not offering this as a perfect product. However, it should be carefully studied. Conditions in each state vary somewhat and it is now up to you to fit this plan to the cooperative control work in your state. Please be mindful of the fact that our agreement was that if I drew up an outline each of you would immediately prepare a definite written plan of work for your state and provide this Office with a copy. I consider this so essential to the success of the cooperative control program that in addition to the outline I have written up a sample plan of work illustrating its development and the character of material and phraseology used in the treatment of the various subjects. An explanation of the plan and its importance may be helpful.

#### The Problem

This is a brief history of blister rust control work in the State, leading up to a statement of the present control program. It gives the background and reasons for the work, shows why the federal government is interested, and enables the reader to clearly visualize the principles governing the cooperative control program. It should cover the subject in a manner that will correctly inform legislative committees and others as to the status and general plan of our work. The State control program is a statement of what



you are going to do and when you are going to do it. It summarizes the problem, states the work to be done, fixes the time within which it must be accomplished and specifies the amount which will be undertaken each year. It gives a proper perspective of the task before you. Avoid too many words, get at the meat of the problem and make this an informing statement which can be used at any time to give a clear yet brief picture of cooperative blister rust control work in your state.

# The Policy.

A policy is a statement of a course of administrative action. The state policy with respect to white pine, blister rust control and cultivated Ribes is a statement of the underlying principles governing public action upon these matters and is the basis for the cooperative control program in the state. A state policy is fundamental and essential. Without it the control program is like a ship without a rudder. Make this brief, to the point, and so simple that a child may understand it.

# The Organization

The organization is the machinery with which the program of cooperative control work will be accomplished. A description of the organization is essential to understand its units, their function and the manner in which they are coordinated so as to operate smoothly, effectively and uniformly. The Plan of Work

A plan of work is a detailed statement of how you are going to accomplish your cooperative control program. It is the systematic arrangement of the work to be done and the preparation of a detailed and definite course of action to be followed in doing the work. Your plan is your guide to accomplishment. First plan your work, then work your plan.

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In developing a state plan of work, it falls naturally into two parts, first a general plan covering the 8-year cooperative control program which is stable and second a separate detailed current working plan which is unstable and must be revised each year to meet a new budget and changing field problems. A copy of the current working plan should be attached as a part of the general plan of work and changed each year when the new working plan is prepared.

I think we all appreciate that each unit of the organization and each individual of the unit needs the help of a plan of work to accomplish the most with the time, money and opportunities available. It will coordinate effort by the specific allotment of time, equipment, men. etc., to do the various jobs that must be performed. The value of any plan lies in the kind of thought and judgment that goes into it and the extent to which it is carried out. A well made plan enables a man to devote a proper proportion of his time to his most important duties.

To accomplish greater results this year each state leader must have a written, tangible and practical general plan of work for the state and a detailed current working plan for 1924. The general plan of work can be carefully written without much trouble but the detailed current working plan is more difficult to formulate and a few words suggesting how to go about its general development may not be out of place.

The first step is to determine what funds are available and what activities must be carried out during the year to secure the application of control measures by pine owners on one sixth of the remaining unprotected white pine area in the state and on protected areas where re-eradication is necessary. In each district a certain section must be eradicated of Ribes in 1924, another section must be prepared for eradication in 1925 and a



third section must be re-eradicated. The state leader can decide upon the activities necessary to get this work done only by conferring with the forest commissioner and each blister rust control agent. This will enable him to compare methods, plans, and ways and means of completing each activity to the best advantage. He should then systematically outline a guiding program of the work to be done in 1924. The next step is to go over this program of work with each blister rust control agent, apply it to each district respectively and then together develop a schedule of work for each agent. The state leader must next cooperate with the blister rust specialist in developing the latters schedule of work so as to bring it into line with the working plans of the State. Finally the state leader prepares his own schedule of work. An exchange of schedules between the agents, state leader and specialist will enable each to know what the other is doing and so coordinate and systematize their efforts as to accomplish more results with the same expenditure of time, energy and funds.

Working plans and my suggested form lacks the specific definiteness required. The State leader should put teeth into his plan and make it practical, since the listing of things that ought to be done, but can not be carried out, does no good. To be able to do this the state leader must know and study the problems of his assistants, and that means he must so organize his administrative duties as to enable him to spend at least half his time in personal contact with his field men to aid them in overcoming their difficulties. Even then he can not spend enough time with the agents, but here the blister rust specialist can fill in by spending most of his time with the agents, checkers, foremen, crews, etc., to seek out



can strengthen them. The specialist should help not only with the educational features of the work but the state leader should also ask him to assist with the service and regulatory features of the cooperative control program as needed. In the same way the federal district supervisor (Mr. Filler) is a leader. He should help the cooperative control program by spending most of his time in personal contact with the state leaders and state cooperators (State Foresters and State Directors of Extension) studying the state's cooperative control problems, and aiding them to solve their difficulties and develop new ways for pushing the work forward.

In this memorandum I have attempted to give you some constructive ideas and suggestions to think over and apply to your work in preparing a state plan of work. Each state leader is requested to prepare a general and also a current plan of work for the state. It is requested that these be submitted through the State Cooperator to this office not later than May fifteenth and sooner if convenient. The current working plan is to include a schedule of work for the state leader and his assistants. This office will also require a plan of work and a schedule of work from its district supervisor and the blister rust specialists, which will be coordinated with the state plan of work.

Very truly yours,

Pathologist in Charge Eastern District.



#### UNITED STATES DEPARTMENT OF AGRICULTURE Bureau of Plant Industry

Blister Rust Control.

Washington, April 25, 1924.

# SAMPLE OUTLINE (A)

#### Cooperative Blister Rust Control Work in Maine

#### The Problem

Summary of early work

Present status

Control program

## The Policy

White pine policy

Blister rust control policy

Cultivated ribes policy

# The Organization

Cooperation

Personnel

Diagram of organization

#### The Plan of Work

Location

Education

Local cooperation

Ribes eradication

Checking ribes eradication

Records

Current working plan (this is developed separately as it has
to be revised each year to meet the new
budget and changing field problems. A
sample current working plan is attached
as a guide for State Leaders in its
preparation).



# SAMPLE STATEMENT (B)

### COOPERATIVE BLISTER RUST CONTROL WORK IN MAINE

## The Problem

#### Summary of early work

The white pine blister rust (Cronartium ribicola Fischer) is a parasitic fungus disease, native to Europe which was unknowingly brought to this country about 1900. Here it was first found at Geneva, N. Y. in 1906 on cultivated black currants and in 1909 on planted white pine. A warning of its dangerous nature was issued and attempts made to eradicate the disease by systematic examination and destruction of imported white pines wherever the disease was found. This proved unsuccessful as the rust was found on native pine and Ribes (wild and cultivated currant and gooseberry bushes) over a large area in western Massachusetts and southern New Hampshire in the fall of 1915.

Systematic scouting in 1915 developed the fact that blister rust was generally established in Maine and other northeastern States. An immediate conference of State and Federal officials and others interested in the forest resources of the country was held at Albany, N. Y. to consider the problem. All hope of eradicating the disease was abandoned and it was agreed that the only way to meet the situation was to undertake the development of local control measures. Accordingly, the State in 1917 began cooperative experimental control work.

During the period 1917 to 1921 inclusive, practical control measures were developed in cooperation with the U.S. Department of Agriculture, which can be applied by individual pine owners through local eradication of Ribes (current and gooseberry bushes both wild and cultivated) within 900 feet of pine stands.



In order to produce white pine it is essential that blister rust control work become a part of the regular procedure of growing this valuable crop but pine owners in general do not kmow the disease or the different kinds of wild Ribes, and are not familiar with the effective methods of their removal. Without this knowledge control can not be accomplished. It is to meet this need, and thus assure continued production of an essential timber crop that the Federal Department of Agriculture, in 1922, entered into the present cooperative 8-year blister rust control program with the State. This program is a joint project of the State and Federal governments, which has for its purpose, the accomplishment of the general control of the disease through Ribes eradication by land owners in regions where white pine is an important crop, during the period 1922 to 1930. Also, it is expected that by the end of the program the methods of applying local control, the need for continued watchfulness for the disease and the necessity of occasionally rescouting control areas for Ribes will, in general, be sufficiently well understood to enable pine owners to successfully cope with the blister rust. Their attention will be called to the dangers incident to Ribes regrowth and such other educational, service or regulatory assistance as they may need will be furnished through the usual channels, after the present emergency is over.

## Present Status

Maine's white pine is estimated at 3,000,000 acres, valued at \$50,000,000 or an average of about \$16 per acre. Out of a total wooded area of 14,000,000 acres, 2,776,000 acres are in farm woodlots. Softwoods make up 65 per cent of the total stand of 27,300 M board feet. Of this 22 per cent or 6,006 M board feet is white pine. Lumbering is one of



Maine's chief industries, ranking fifth in importance, and white pine makes up 37.6 per cent of the total lumber cut in the State.

In 1920, a survey of 38-1/2 miles of rod wide strip lines showed 6 per cent of the pine infected. It is probably safe to estimate at least 10 per cent of the white pine in the state is now diseased where Ribes have not been eradicated. The momentum of the disease is constantly increasing and causing a corresponding increase in the amount of pine infection each year. Even if we assume there will be no loss in control areas (which is not true since more or less pine infection had occurred before the Ribes were eradicated) it is conservative to state that the loss from blister rust at present amounts to not less than 5% of the estimated total value of the white pine resources of the State or \$2,500,000.

On the other hand the eradication of Ribes on 712,411 acres of land has protected from further damage at least 474,941 acres of pine (allowance for protective strip made by deducting 1/3 of total eradicated acreage) worth at an average of \$15 per acre \$7,219,103 (5% deducted for loss resulting from infection which had taken place up to the time of Ribes eradication). The total cost of the control work has been about \$50,000. At this rate (approximately 12 cents per acre) the cost of protecting Maine's 3,000,000 acres of pine would amount to \$360,000 or considerably less than one per cent of its estimated value. Reeradication will be necessary in some areas where Ribes were originally abundant, but the cost of this work will be much less than that of the initial eradication.



State and Federal cooperative funds used (1917 to 1921 inclusive) on experimental demonstration control areas in developing effective and cheap methods of finding and destroying Ribes and in ascertaining if they could be thoroughly enough removed to prevent commercial damage to pine, resulted in the eradication of these bushes on 185,750 acres and the reduction of average per acre costs from \$1.05 to six cents.

Under the cooperative 8-year control program 190,209 acres were eradicated of Ribes in 1922 and 336,452 acres in 1923 or a total of 526,661 acres. This is nearly three times the total area eradicated prior to 1922. The accompanying map shows the range of white pine in Maine, the area which has been eradicated of Ribes and the area still remaining to be completed.

# Control Program

In all, 712,411 acres which includes the protective strip around pine stands, have been eradicated of Ribes or about one-fourth of the State's estimated 3,000,000 acres of white pine. There are left 2,287,589 acres to be protected in the remaining 6 years of the cooperative eight-year control program. This means that 381,264 acres plus the protective strip around pine stands must be eradicated of Ribes each year. In addition a re-survey of control areas eradicated in earlier years must be started in 1924 to determine the need, time and method of the second Ribes eradication. While a re-survey system will be carried out by the State during the next six years of the control program, the actual Ribes eradication where necessary will be done by the pine owner. During the next six years about 1,000,000 acres or approximately 160,000 acres a year will be re-examined and the owners advised to eradicate Ribes for the second time where necessary.



#### The Policy

#### White Pine Policy

White pine is by all odds the most important forest tree in southern Maine. It covers a large area, is used for more purposes and brings a larger return than any other forest resource in that part of the State. Its management as a permanent crop, both on farm woodlots and wild lands is essential to maintain the prosperity of the region. Every effort will be made to emphasize the importance of white pine in the agricultural and industrial life of the State and to encourage its protection, better management and increased production. Planting of white pine will be encouraged in the southern half of the State and forestry endeavor directed toward building up the white pine forests on the basis of a sustained yield.

#### Blister Rust Control Folicy

The cooperative 8-year control program has been undertaken in an endeavor to secure the application of control measures to the entire area in which white pine is of primary commercial importance. We attempt will be made to secure the general control of the rust in the non-commercial pine regions of the State because of the scarcity of white pine, abundance of Ribes and prohibitive cost of control work under such conditions.

However, pine owners in these sections of the State will be warned of the danger from blister rust and so far as practicable, given advice and assistance in applying control measures upon request. The State will cooperate with the U. S. Department of Agriculture, State Entension Service, towns, associations and individuals in control work. Control areas will be proclaimed within which all Ribes must be eredicated and their further growth or cultivation abandoned. The eradication of Ribes must be done by the pine owners or at their expense. Such work will be properly checked



by the State to guarantee effective work. The Ribes factor remaining on each control area after the initial eradication will be determined by a suitable check and recorded as a basis for deciding when the second eradication of Ribes will be necessary. Such follow-up control work will be done so far as practicable during the cooperative E-year program.

Through the work done under the control program, pine owners are expected to become sufficiently well informed and trained in the practice of local control to continue protecting their pine crop from the rust as the need arises.

# Cultivated Ribes Policy

The cultivated black currant is considered a public nuisance.

Fruiting currant districts are desirable in non-pine producing sections of the State. Cultivated Ribes will be eradicated in control areas and their further planting prohibited. Control areas will be officially designated as such and their boundaries definitely established. The same policy will apply to fruiting currant districts. The standard width of the Ribes free protective zone surrounding control areas will be 900 feet. This protective strip may be reduced in width to 600 feet at the specific direction of the Forest Commissioner if local conditions warrant such a reduction, but the standard width (900 ft.) will be used generally.

The Organization

#### Cooperation

Cooperative blister rust control work combines educational, service and regulatory activities which are effectively coordinated into one working unit. The work is conducted under a formal agreement between the State Forest Service, the State Extension Service and the United States

Department of Agriculture (Bureau of Plant Industry and Office of



Cooperative Extension work). Under this agreement the State agrees to meet Federal expenditures dollar for dollar.

The United States Department of Agriculture through its Bureau of Plant Industry discharges its responsibilities under the cooperative agreement by providing county or district blister rust control agents to give pine owners the necessary expert advice, leadership and supervision needed to secure immediate and effective local eradication of Ribes in pine growing regions. It is responsible for the proficiency of these agents in all subject matter and technical information essential to the conduct of their work and in addition gives such assistance as is practicable in the further improvement of control practices through experimentation and demonstration.

The State Forest Service is responsible for the administrative direction of the cooperative blister rust control work within the State, for the enforcement of State Blister rust laws and for furnishing trained personnel to supervise cooperative Ribes eradication work so as to guarantee effective removal of the bushes. Through the State Forest Service, land owners individually and by town appropriation provide labor for the eradication of Ribes on their properties.

The State Extension Service is responsible for assisting the educational features of the cooperative blister rust control work as far as possible through the cooperation of the county extension service. It makes available such facilities of its organization as is practicable and gives expert advice and assistance in the use of extension methods in so far as they are applicable to the cooperative control work. All blister rust educational activities are conducted in harmony with the organized extension service of the State and coordinated in the U. S. Department of Agriculture through the Office of Cooperative Extension work.



This arrangement has resulted each year in bringing forth an increased volume of control work within the State and with it a constantly growing desire among pine owners to protect the white pine crops on their lands.

#### Personnel

The Forest Commissioner is the nominal head of the cooperative blister rust control work within the State. His chief assistant in the blister rust control work is the state blister rust leader.

The State Leader is employed and technically trained by the Bureau of Plant Industry and while administratively responsible to the Forest Commissioner, he also represents the other parties to the cooperative agreement. He coordinates the efforts of all into an effective working unit for the prosecution of the cooperative control program as the Forest Commissioner may direct under the provisions of the cooperative agreement. The State Leader is responsible for carrying out the state blister rust policy and program of work. He plans, organizes, initiates, supervises and summarizes the results of the cooperative blister rust control work.

employed and trained by the Bureau of Plant Industry and located in each white pine county or district within the State. Each blister rust control agent is responsible to the state leader for carrying out the cooperative control program in his district. He is the local leader charged with securing the general application of control measures by pine owners in his district in a manner that will result in clearing definite areas of Ribes each year. This includes the development of a plan of work in cooperation with the State Leader, the obtaining of local cooperation in control work.



the organization and supervision of field work, the systematizing of the activities under his supervision and the preparation of reports on the progress of the work in his district. In 1924 the agent is assigned to each of the following districts; Cumberland County, Oxford County, York County, and Androscoggin and Sagadahoc Counties.

Temporary agents are employed during the field season to assist the blister rust control agents in preliminary control reconnaissance (eliminating Ribes free areas and marking Ribes areas for eradication work), interviewing pine owners and supervising and checking cooperative Ribes eradication. They work under the direction of the blister rust control agents to whom they are responsible.

The foremen are employed on cooperative town funds and trained by the State. These men are responsible to the blister rust control agent in whose district they are working. They direct and check the Ribes eradication work of the laborers who are supplied by pine owners. The foremen are held responsible for the efficiency of the laborers (eradication crews) who work under their supervision.

The State employs a checker who is responsible to the state leader.

He makes administrative checks of the Ribes eradication work done in the

State, reports poor work to the agent and State leader for correction and is

responsible for seeing that Ribes eradication work is maintained at a high

standard of efficiency.

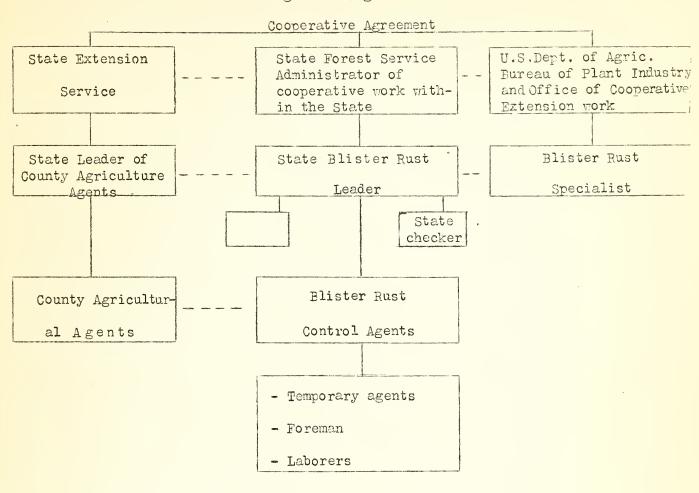
In addition to the State Leader and blister rust control agents the Bureau of Plant Industry employs a <u>Blister Rust Specialist</u> for work in Maine and New Hampshire. He is administratively responsible to the Bureau of Plant Industry and works in harmony with the blister rust plans and organization of the state leader. The blister rust specialist assists the



state leader and blister rust agents with their problems, studies the cooperative control work in all parts of his territory and aims to stimulate it by finding the weaker phases in poorly or newly organized districts and devising means whereby the state leader may make adjustments for improving the work. In general the specialists' job is that of strengthening the weak spots in the state's cooperative blister rust control work, especially the educational features, to bring the work to the highest possible level of efficiency.



### Diagram of Organization



\_\_\_\_\_Direct authority

For assistant State Leader or eradication supervisor in States having such employees.

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### The Plan of Work

The cooperative 8-year blister rust control program in Maine is conducted in accordance with the following plan of work. This plan was drawn up to meet Maine's field conditions and secure the greatest amount of local cooperative Ribes eradication by pine owners that is possible with the means at our disposal during each year of the control program.

### Location

The principal commercial and potential white pine area of Maine is restricted to the southern half of the State. This region is divided into four districts, namely, York County, Cumberland County, Oxford County and Androscoggin and Sagadahoc Counties. Each district is sub-divided into eight sections one of which is scheduled for completion during each year of the cooperative control program as shown on the attached maps. The township is used as the dividing unit in the district and within the town, the block or control area. The latter is usually bounded by roads, rivers, brooks or other permanent and natural features.

### Education

General information on the control of blister rust is made available to the public by the state leader and blister rust control agents through the press, local meetings, publications, posters, motion pictures, lectures, exhibits, etc., to arouse interest in combatting this disease, particularly among pine owners. The desire of land owners and others to protect their white pine by eradicating Ribes within 900 feet of the trees is then obtained through local demonstrations of pine damage and control measures. This is followed by the systematic interviewing of pine owners to secure their active cooperation in eradicating Ribes upon their land.



### Local Cooperation

Under the State blister rust law, the forest commissioner issues proclamations setting aside definite control areas, from which all wild and cultivated Pibes must be removed by the land owners within a specified time. If this is not done, then the forest commissioner may cause the bushes to be eradicated charging the cost of the work to the town and collecting payment as a state tax. In all cases the land owner is responsible for the eradication of Ribes on his property and must bear the cost of the work either individually or collectively through town appropriations. The state cooperates with towns, associations and individuals by furnishing trained men to examine the owner's land for Ribes, arrange for their eradication and supervise and check the control work on their properties. If the owner prefers, the state will furnish a trained crew to do the work and charge the actual cost to the owner. Monresident owners are treated the same as resident owners. They are written to, the disease and its control explained to them, and their cooperation in the eradication of Ribes on their land requested.

### Ribes eradication

Under the direction of the blister rust control agents the temporary agents will examine the pine owner's land for Ribes. If the land is free of Ribes or contains so few that they can be uprocted without loss of time, the agent pulls them and advises the owner of the Ribes conditions found on his property. If Ribes are more plentiful, the Agent demonstrates these conditions to the owner and arranges for him to eradicate the bushes himself or to hire laborers (crew) to do the work. The work is done under the direction of a trained foremen to guarantee the efficient removal of the bushes. If towns appropriate funds for



cooperative control work, the money is used to pay the wages of trained foremen who assist pine owners within the town to eradicate Ribes on their land and on town owned pine land. After the control work is done the owner is advised to keep on the lookout for Ribes and pull up any he finds. A re-examination of the area is made after a sufficient period of time has elapsed to allow for Ribes regrowth and the owner advised when re-eradication will be necessary.

### Checking Ribes Eradication

Every piece of Ribes eradication work is checked by the men doing the work and by the foreman. It is also checked by the agent before it is approved. If the check shows the work is poor, it must be done over again by the responsible party. Checks by the crew and by the foreman usually catch up poor work immediately, so that the area can be reworked without delay. Upon completion of the work on each control area, a systematic administrative check is made by the State Leader or his representative. This is a single strip check across the control area to get the number of Ribes and feet of leaf-bearing stem left per acre. This Ribes factor enables the State Leader to determine when re-eradication will be necessary and the method to be used in doing the work.

### Records

A daily record of the work performed is kept by each employee, except laborers, whose work is recorded by the crew foreman. These are summarized monthly on prescribed forms and copies furnished the cooperating parties. They not only serve as a record of accomplishment, but enable the work of each employee to be analyzed, corrected and strengthened where necessary.



At the end of the year they form the basis for an annual report. Towns that appropriate funds for cooperative control work are furnished a detailed report, showing the manner in which the town funds were expended and the results accomplished. A map is kept by each agent on which is located the control areas, pine areas, eradicated areas, etc., in his district.

### Current Working Plan

The current working plan outlines in detail the work to be done each year by the State Leader and his assistants. It includes a statement of the activities to be undertaken, schedule of work for the state leader, blister rust control agents, etc. and a budget. This plan is developed by the State Leader in cooperation with his assistants and approved by the Forest Commissioner. Each year the plan is revised to meet the new or changing budget and field problems of the cooperative control work.

Prepared by J. F. Martin,
Bureau of Plant Industry.
Office of Blister Rust Control.
April 15, 1924.



### SAMPLE TEMPORARY AGENTS SCHEDULE OF WORK FOR 1924

etc.	Supervising eradica-	Checking eradication	Training town	Interviewing pine owners	Scouting for Ribes	Activities
	18-19 Liverick 20-21 Cornish	30- Cornish 31- Liverick	12-17 Liverick	5-10 Cornish 26-29 Liverick	1-3 Cornish 22-24 Liverick	Ney
					Ф ct с	June
						July
						August
						Sept.
						Oct.



# SAMPLE OF STATE LEADERS SCHEDULE OF COOPERATORS BLISTERS RUST CONTROL ACTIVITIES

(Note: The state leader would find activities as a reminder of when to bring these matters to his chief's attention.) it useful to systematize and schedule the state cooperators blister rust

The second secon				The same of the sa								
Blister rust activities of state			1924							<b>-</b>	1925	
cooperator	May	June	July	Aug.	Sept.	Cct.	Nov.	Dec.	Jan.	reb.	Mer.	April
Gonference with state leader on progress of work and approval of cooperative expenditures	1.5,30 15,30		15,30	etc.								
Legislation (Blister rust appropriation)								15-18	10,20	2,15,25		
Approval of budget	p-J		1									
72 51	\J <sub>1</sub>											
Approval of current working plans	ഗ								•			
Sign cooperative agreement		15										
Conference with Extension			ر د			- V			3			12
Forestry - Blister Rust Field		02		10			J	20	n	7.9	11	
Conference with town selectmen										12,21	2.3	
Inspection of field work	2.4		2025		8-12							
Inspection of pine damage	16-19											
Addresses						18	24	10	16	\J1		
etc.										,		



## SAMPLE BLISTER RUST CONTROL AGENTS SCHEDULE OF WORK FOR 1924

	control measures	Application of local	ACTV	for coopera-	Organizing pine owners		Inforthing public generally	Office	Activities
Supervising field Work: 1/,24 etc.	scouting plans: 17,22,27, Inspecting and checking cooperative Ribes eradication on control areas: 16,23	Securing and training town foremen: 8,9,10 Assisting temporary agents x,y,z,		to arrange for town Toremen, 19, 17 Demage demonstration Cornish, Sanford, Timerick: 20, 21	Interviewing gine owners in Cornish: 6, / Interviewing selectmen Cornish, Sanford	eic	Talk to Cornish farm bureau: 2, Roadside exhibit at Liverick: 2, Articles for local press and farm bureau paper: 5, Gathering field data for poster: 12, Collecting specimens for exhibits: 19, Window exhibits at Cornish; Hollis: 26,	Schedule of work: 1, Gerrespondence: evenings Records: evenings and odd times Reports: 30, 31, etc.	Mey
								etc.	June
								etc.	July



### UNITED STATES DEPAREMENT OF AGRICULTURE Bureau of Plant Industry

Blister Rust Control

Washington - April 25, 1924.

### MEMORANDUM FOR STATE COOPERATORS

Gentlemen:

The enclosed memorandum for State Leaders is self-explanatory.

Will you kindly pass it on to the State Leader together with the accompanying sample statement and plan of work and assist him to prepare a similar statement and plan of work covering the cooperative blister rust control program in the State.

No doubt the statement and plan as cutlined may be improved upon by the State Leader and I am sure its preparation and use will more than repay our efforts with better results. I am looking forward to the development of a plan of work in each state which will cause each of us to study our problems more minutely and also give us a unified basis for explaining our cooperative control program to persons both in and outside of our organization.

Very truly yours,

Pathologist in Charge, Eastern District.



### SAMPLE WORKING PLAN (C)

### Cooperative White Pine Blister Rust Control in Maine Current Working Plan for 1324

This plan is neither perfect nor complete. It is simply offered as one method of presentation to help State Leaders in preparing the working plan for their respective States. You may follow it or not as you choose but we expect it can be improved upon greatly by each State Leader, since he knows local conditions and has all the facts regarding the cooperative work at hand.

### I. Location of work:

Southern Maine, which is the principal commercial and potential white pine region of the State. This region is divided into four districts as follows:

District I - - - - York County

" II - - - - Oxford "

" III- - - - Cumberland County

IV - - - - Androscoggin & Sagadahoc Counties

The attached map shows the division of the white pine area of
the State into districts, the area eradicated of Ribes in each
district up to December 31, 1923, the towns in which Ribes will
be eradicated in 1924 and the towns in which Ribes have not been
eradicated.

### II. Assignments:

The following assignments are made for carrying on the work in the State and in each district:

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State - Neil L. Violette - Forest Commissioner in Charge.

W. O. Frost - State Leader and Supervisor.

District I - E. E. Tarbox - Agent in Charge.

- 3 temporary agents.

- 15 " town foremen.

 Local labor supplied by cooperating pine owners.

District II - D. S. Curtis - Agent in Charge.

- 3 temporary agents.

- 10 " town foremen

- - Local labor supplied by cooperating pine owners.

District III - G. K. Kimball - Agent in Charge.

- 3 temporary agents

- 10 " town foremen

 Local labor supplied by cooperating pine owners.

District IV - S. D. Connor - Agent in Charge

- 3 temporary agents

- 10 " town foremen

- Local labor supplied by cooperating pine owners.

### III. Activities:

These fall under two main heads, first those activities which apply to the cooperative work in the State as a whole and second, those which apply to the cooperative work in each dis-

trict. Those which apply to the State as a whole are of two kinds namely administrative and supervisory, while those which apply to each district may be classed collectively as field work which consists of educational, service and control or regulatory features.

1. Activities to be carried out in the State as a whole.

			I			Results
	What	Where	Then	Ном	Who	Expected
(a)	Administration -				Forest	
			7 7 1	2	•	Approval and
	Cooperative Agreement	Augusta	June 1st	Correspondence	sioner	Signature Public observance
			Entire			of State blister
	Regulation	11	year	Law Enforcement	t1	rust laws.
						Guide the Coop-
				•		erative work in
	Policy	11	11	Written Statement	11	the State
	•			Legislation		State approp.
	Finances		T 7 7 4	and	11	Local coop. fund. Federal
	Fillances		July 1st	Cooperation		funds.
(b)	Supervision			Conference with		Plan of work for
, ,				agents and B. R.	State	1924, Budget
	Plan of Work	ît .	Mar.1-15	spec.	Leader	schedules of
						work for person-
					**	nel.
	Office Management	tt		l Clerk half time	11	Proper attention
			each week			to records, sup- plies, for field
						men, correspon-
						dence, payrolls,
						keeping up
						schedules of
	Discontinuo R	77				work, etc.
	Direction of agents	Field	3 days	By working with	11	Increased num-
	agenus		per week May 1 to	agent in the field	**	ber of toym and individual co-
		•	Oct. 30	0110 11010		operators.
			and 2			500,000 acres
			days per			erad. of Ribes
			week for			in 1924. In-
	•		balance			creased local
			of year			cooperative
	Inspection of	Field	While	Checking of		funds.  95% efficiency
	Control Work.		directing	Ribes eradi-		in Ribes eradi-
	-		work of	cation in		cation.
			agents	each district		
			May 1 to			
			Oct.30.			



(Contid.) Results Tho What Where When How Expected Increased pub-Augusta l day per Talks, exhibits, State General Publicity press items, Leader lic interest week in cooperative posters, town centrol program meetings, etc. Better coop-1 day per Personal visits, Cooperative Contacts State eration, coweek correspondence. ordination and understanding of cooperative work.

2. Activities to be carried out in the districts.

What	Where	When	: How	Who	Results Expected
(c) Field Work (a) Office	Head- quarters	At odd times	By doing neces- sary work.	Agents	Keep records, re- ports, correspon- dence up to date and filed in shape for ready reference
(b) Informing public generally	In districts	l day per week May to Oct., 2 days per week balance of year	Meetings, ex- hibits, posters, publications, press items, schools, gathering field and local data and preparing it for use, talks with selectmen, at town meetings, Farm bureau meet- ings, Forestry committees, grange meetings, exhibits, talks and registration books at fairs, window exhibits, etc.	Agents	To arouse interest and extend know-ledge of the cooperative control work. Increase of 50% in local cooperation in each district in 1924.
(c) Organizing pine owners for coopera- tive control work	Control areas	2 days per week May to Sept. 4 days per week balance of year	Personal inter- views with land owners (pine and Ribes), select- men, etc. ir- dividual and group demonstra- tions of damage,	Agents	Final arrange- ments for erad- ication of Ribes on control areas by individual groups of pine pumers or by towns. Expect to double



(Contid.)

		( 00	nt'd.)		
7/hat	Where	When	Ноч	Who	Results Expected
			different kinds of Ribes and control methods, field meetings, etc.		1923 acreage in 1924.
(d) Application of local control measures.	Control areas	Agent 3 days per week May to Sept. foremen scouts and laborers 6 days per week.	conducting cont trol area reconnaissance, determining how Ribes eradica- tion work shall be done; train- ing foremen and labors; super- vising and checking Ribes eradication work; advising owners how to keep their pine lands free of Ribes after initial eradi- cation work has been done.	Agents assis- ted by scouts and fore- men.	Efficient eradication of Ribes on control areas by pine owners or by laborers paid by pine owners.

### 3. Cooperative local eradication of Ribes in each district.

		Esti-				
		mated		Expect to	Expect to	
		acreage :	Esti- :	begin	finish	
		to eradi-	mated	eradi-	eradica-	
Districts:	Control areas	cate	cost	cation	tion	Assignment
I _	Parsonsfield	1000	\$100	May 15	May 30	Temporary agent town foreman
	Cornish					
	Limerick					
	Shapleigh					
	Waterboro					
	Hollis					
	Buxton					
	Lyman					
	Alfred					
	Kennebunk					
	Berwick					
	I.Berwick					
	S.Berwick				(1)	
	Wells					
_	Lebanon					



			(Cont'd.	)		
Districts	: Control areas :	Esti- mated acreage to eradi- cate	Esti- mated cost	Expect to :     begin     eradica-     tion	Expect to finish eradica-	Assigument
	Parsonsfield	1.000	\$100	May 15	May 30	Temporary agent town foreman
II	Waterford Paris Norway Fryeburg Rumford Hiram Woodstock Andover Lovell Oxford					
III	Harrison Bridgton Naples Standish Bladwin Casco Freeport Raymond Gorham					
IV	Minot Lisbon Topham Turner Linemore Bowdoin E.Livermore Webster Poland					

### IV. Budget. (Figures used in this sample are fictitious) A. Fiscal year 1924 1. Cooperative expenditures July 1, 1923 to June 30, 1924. (fiscal year 1924)

	State	Federal
Allotments in cooperative agreements Expended to March 31	\$16,000 12,000	\$16,000 10,000
Balance April 1	\$4,000	\$6,000

Estimated expenditures April 1 to June 30, 1924.

. \*\* 01

Name	Salary	Expense	State	Federal				
Tarbox Supplies etc.	375	200 500	500	575				
Total	375	700	500	575	name of the same o	500		575
Estimated cred	it or de	ficit June	30					
3. Fiscal year	1925							
2. Availab	le funds	for fisca	l year	1925* (J	aly 1, 19	324 to June	30,	1925)
Sou	rce						Amo	ount
3. Detaile	coopera spection lotment- for Sta	tion funds te						
<u>Name</u>	<u>P</u>	eriod	Rate	Salary	Expens	<u>se</u> <u>I</u>	otal	
Foremen Clerk Supplie etc. Total			6- No	NA COLUMN AND AND AND AND AND AND AND AND AND AN				
(b) Fr Name	om Feder	al funds Period	Rate	S	alary	Expense		Total
Tarbox		12 months	1,0000		500	1,000		2,500
etc.			www.enderscool.enderscool.enderscool.enderscool.enderscool.enderscool.enderscool.enderscool.enderscool.endersc				general and a second	-, )

Totals

<sup>\*</sup>Where figures are estimated indicate by asterisk.



### 4. Recapitulation of Expenditures by Activities

Administration an	d Supervis	ion*			ਜ਼ੋਹ	inds p	aid f	rom
Name	Period	Salary	Expense	Total	State	Torm	Loca'	Federa!
Clerk Etc.	6 mo.	\$600	\$	\$600	\$500	\$	\$	\$
Frost etc.	12 mo.	2000	500	2500				2500
Total				3100				
Blister Rust Cont	rol Agents	**						
Tarbox Curtis etc.	12 mo.	1500	1000	2500 2500				2500 2500
Total				5000				
Ribes Eradication								
10 foremen 40 laborers etc.		\$4 per	day			1200	5000	
Total				6200				
Ribes Compensation	<u>n</u>							
5 claims etc.		• •	50	50	50			
Total				50				
Field data								
etc.								
Totals								Arrest errors of the control of the
Miscellaneous								
Supplies etc	12 mo.		200	200	200			
Totals _				200	850	1200	5000	7500
Grand total						7050		\$7500



### 5. Summary of Expenditures by Activities

Activity	State funds*	Federal funds	Total
Administration and Supervision	\$600	\$2500	\$3100
Blister Rust Control Agents	• •	5000	5000
Ribes Eradication	6200	ø 9	6200
Ribes compensation	50	• •	50
Field data	<b>*</b> 0	a •	
Miscellaneous	200	3 0	200
Totals	<b>7</b> 050	7500	14550

<sup>\*</sup>State funds = Town, appropriation, state appropriation and local monies paid by cooperators for labor.

Prepared by J. F. Martin,
Bureau of Plant Industry,
Office of Blister Rust Control,

April 15, 1924.



ialist and agents. At the end of the month correct the schedule to show model in preparing the next year's schedule. Have the agents supply you

Montl		February	March	April
	ual its ice	1-15 blister rust conference 30, agents conference.	1-15 plan of work and schedules 30 agents conference	15-30 foreman training schools. 30, agents conferences
		,	-	
			7	
	~	,	,	
		,		



# SAMPLE STATE LEADERS SCHEDULE OF WORK FOR 1924

(Note: If this schedule can not be projected for the entire year, make it up in advance on the first of each month and send copies to the blister rust specialist and agents. At the end of the month correct the schedule to show work actually done and project the next months activities. Do this for the year and you will have a correct picture of your activities to use as a model in preparing the next year's schedule. Have the agents supply you and the blister rust specialist with similar schedules, so that better coordination will be secured.)

Months	Vay	June	July	August	September	October	November	December	January	February	March	April .
1. 1. 1. 5.1 2. 2. 2. 2. 2. 2. 2. 2. 3. 3. 3. 4. 4. 5. 4. 5. 4. 5. 4. 5. 4. 5. 4. 5. 6. 4. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 7. 7. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.	agents conference revision current budget salary recommendations 2,19,26, correspondence rolls, etc. 3,20,27 article for lication and other eral publicity. 17 inspect Kittery area in commissioner. holiday	30, agents conference 1, preliminary report for legislative hearings	30. agents conference 25-30 analysis field	1-15 annual report, 30. agents conference	1-15 blister rust conference 30, agents con- ference.	1-15 olan of work and schedules 30 agents conference	15-30 foreman training schools					
pla wit age 114, tor and for and for rus	assist agent in nning his work, confer h county agricultural nt. confer with town ectmen on control work collecting specimens exhibits. talk to forestry-blister t field meeting with est commissioner.								•			
org org org org org org org	assisting agent in nning his work. inspection of agents cational work. assisting agent in anizing crews for assertation.			,								
9-1 II in I con	O - assisting agent organizing and planning trol work conference with agent.											
21- to 1 for 29.	22 - assisting agent											,



ialist and agents. At the end of the month correct the schedule to show model in preparing the next year's schedule. Have the agents supply you

1			aydadaaqaan minatees walqana adaan aarabaada oo saasaa taasaa tabaa oo saasaa ahaa saasaa taasaa dhiisaa dhiis			
Mont		February	March	April		
	ual its ice	1-15 blister rust conference 30, agents conference.	1-15 plan of work and schedules 30 agents conference	15-30 foreman training school. 30, agents conference.		
ł						
		4				
		,				
			,			
		•				



# SAMPLE STATE LEADERS SCHEDULE OF WORK FOR 1924 -

(Note: If this schedule can not be projected for the entire year, make it up in advance on the first of each month and send copies to the blister rust specialist and agents. At the end of the month correct the schedule to show work actually done and project the next months activities. Do this for the year and you will have a correct picture of your activities to use as a model in preparing the next year's schedule. Have the agents supply you and the blister rust specialist with similar schedules, so that better coordination will be secured.)

ths	May	June	July	August	September	October	November	December	January	February	March	April
1, 1, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	agents conference revision current budget salary recommendations 12,19,26, correspondence yrolls, etc. 15,20,27 article for blication and other neral publicity. 17 inspect Kittery area th commissioner. holiday	30, agents conference 1, budget: for fiscal year beginning July 1, 2,- conference with extension director.	conference	30. agents conference	30, agents conference	30, agents conference	30, agents conference 1, preliminary report for legislative hearings	30, agents conference 25-30 analysis field work.	1-15 annual report, 30, agents conference	1-15 blister rust conference 30, agents con- ference.	l-15 plan of work and schedules 30 agents conference	15-30 foreman training school. 30, agents conferences
planting pla	Z assist agent in anning his work, confer th county agricultural ent.  confer with town lectmen on control work d collecting specimens rexhibits.  talk to forestry-blister of tield meeting with rest commissioner.											
7-1 pla 24- 31 edi 31- ora	8 assisting agent in anning his workinspection of agents neational workassisting agent in ganizing crews for hes eradication.			,							7	
9-1 in con	lO - assisting agent organizing and planning ntrol work conference with unty agent.											
21- to for	-22 - assisting agent secure and train town remen.  talk before Cornish women's club.								-	,		

properties to the second of th morning is a standing for infines damper of the jump size size in the back to the first of the control of the c and the state of t The state of the s the problem of the same and the second s a elegation attracts regionally grange or beginning the life con-STATE SANTE OF THE STATE of the s 医皮肤 网络罗伊斯萨伊克克斯斯特里克斯 ing adams that the The second second second at at the set seems and the Alternative to the state of the state of 

Second Annual State Leaders' Meeting,

Chiswick Inn, Littleton, N.H.

October 13 and 14, 1924.

Attendance:

Messrs. Frost, Newman, Martin, Corliss, Ross, Hale, Tripp, Filler Endersbee, Callward, Tucker, Yarnell, Black, Amadon, and Fivaz.

# Monday, October 13, 1924. A.M.

Field trip to the Waterford infection area (on Leighhurst Farm) was the first item on the program. We stopped enroute, just outside of Littleton, N.H., to look over an infection area where over 50% infection had been recorded on reproduction 10 to 20 feet high. We stopped also at a roadside demonstration near Waterford, where scouting revealed considerable infection. At Leighhurst, we visited the points of interest and engaged in a discussion of management. We were joined there by Messrs. Yarnell, Black, and Ross, who returned to Littleton with the party for dinner, after which Messrs. Yarnell and Black left. The opinion of the party, as regards the management of the Leighhurst area, was to cut the older timber, eradicate the pine areas (estimated cost under \$1.00, probably 30-40¢ per acre), and filling in the open spaces by planting. Mr. Yarnell suggested breaking up the sod in the open places to get natural reproduction from this year's seed, which seems plenty on this area.

# Afternoon Session

Meeting called to order by Mr. Filler in the parlors of Chiswick Inn, Littleton. Mr. Newman was unanimously elected Chairman.

Mr. Newman distributed copies of the State Leaders' Number of the New Hampshire Forestry Department News Letter, extending greetings and cordial welcome to the visiting men. The News Letter included a copy of the Letter sent to pine owners in New Hampshire. Mr. Ross mentioned that pine owners in Vermont receive letters from the state office relative to an Agent call in the future.

1. Reading of Scenario by Dr. Martin.

Dr. Martin told of the proposed blister rust film to be taken soon, and read the scenario. Notes were taken on the scene locations suggested by those present, Mr. Green, of the Motion Picture Office, and an operator are due at Littleton on the 15th of the month to start the making of this film.

2. Educational Material.

Discussion of tags and signs for roadside demonstrations to be printed in Washington. Limiting roadside tagging and posting was favored - a few areas well tagged thought best.

The following legends are suggested for the tags and cards to be printed in Washington:

For large cards, 2 by 3 feet.

SEE BLISTER RUST AHEAD BLISTER RUST IS HERE STOP! LOOK!

BLISTER RUST KILLS WHITE PINES

BLISTER RUST
CAN BE CONTROLLED
IN YOUR LOCALITY
(Communicate with
State Office)

The following one has been suggested but not ordered:

PROTECT YOUR WHITE PINES
FROM BLISTER RUST
By pulling up all current and
gooseberry bushes within 9001
of your pines.

Tags have been ordered with the following legends:

BLISTER RUST	THIS IS A	BLISTER RUST	THIS WILD
TS	BLISTER RUST	KILLED	GOO SEBERRY
KILLING	CANKER	THIS	BUSH
THIS		WHITE PINE	SPREADS
WIITE PINE			BLISTER RUST
(yellow)	(light red)	(yellow)	(yellow)

It was suggested that the following also be ordered:

THIS WILD

CURRANT

BUSH

SPREADS

## BLISTER RUST

Amadon told of the use of the tags in back lots and pastures, to locate infection for owner's future trip to the lot, but first obtain owner's permission to tag trees.

In the discussion which followed Amadon recommended using wire

to tie the tags on the pines. He claims that in this way tags will be more permanent and also the stiffness of the wire will keep the face of the tag outward so that legend on it may be more easily read. Inquiring of Dr. Martin regarding the cost of these tags, Amadon asked whether the cost of such tags, signs and circulars are to be charged against the state allotment. Dr. Martin replied that the cost of these tags would not be charged to the allotment.

The new Blister Rust circular was discussed and estimates received from the different states as to the number which they could utilize. A total of 75,000 asked for by the leaders, including allowances for absentees. Mr. Ross asked if the state could print on the circulars, the cooperation of state department; answered in the affirmative by Dr. Martin. He said it would have to meet with the postal regulations in order to go out under the frank. Mr. Ross suggested allowing enough space under the legend, "U.S. Department of Agriculture", to permit of such printing so that it would not look as if tacked on.

#### 3. Blister Rust Exhibits.

It was generally agreed by the State Leaders that the value of Blister Rust exhibits at fairs, in windows, etc., could not be over\_estimated. Mr. Filler spoke on better exhibits, better tagging of material and better planning of set-up. He suggested that in thr arranging of all exhibits great care should be taken to make them as simple as possible, so that there would be no doubt in the minds of the people as to the nature of the exhibit. Mr. Frost of Maine gave an interesting description of an exhibit, worked up by one of the Maine agents, which Mr. Frost described as being one of the best exhibits which he had seen. The question of signs for special demonstration purposes at field meetings was taken up and Mr. Endersbee was requested to describe the signs used at the Waterford, Vermont, blister rust field meeting.

4. Winter Work of Blister Rust Agents.

Discussion was started on winter work, Mr. Filler reading the following summary of work:

Analysis of Winter Work of Agents.

January - March, 1924, inclusive.

- l. Time spent per man by project, as follows:
  Office 36.6 %, supervision 0.1 %, eradication 2.0 %, scouting 8.6 %,
  education and service 33.1 %, travel 18.9 %, miscellaneous 0.6 %.
- 2. Results:

General educational work per month.

Meetings 2.7, exhibits 0.8, publications distributed 145.1 items published 3.9, posters 6.6, demonstrations 0,1.

Service work PER DAY.

Initial interviews 1.4, follow-up calls 0.5.

#### 3. Analysis:

If less time was spent in the office, more educational and service work might have been done in the field, especially personal interviews. Office work (36.6% of Agent's time) shows as a result only 3.9 items published per man per month, the remainder of the time being spent on correspondence and maps, as annual reports were submitted previous to Jamuary.

Mr. Ross told of a proposed Vermont plan of industrial survey. Mr. Newman told of County Forestry Committee, and its influence in increasing Agent's winter work. Keeping the Committee active, and the reactions of committee work, help keep Agent on the jump in winter. Mr. Filler mentioned the making of damage studies and the laying out of forestry-blister rust demonstration plots. He also read the following statement in regards to winter work:

"In the winter of 1922, Braden, Endersbee, Streator and Hodgkins, proved that effective personal interview work could be performed in New Hampshire, Massachusetts, and Maine. In spite of the weather, the men worked outside practically every day of the winter. They found that by walking (if need be, with snowshoes), and by occasionally using a team, they could cover all portions of a town. They also found that pine owners were glad to have someone visit them at this time of year, and were willing to listen to their story.

"It is not necessary nor desirable that the Agent return to his official headquarters each night. The Agent should locate in a town until he has covered it thoroughly.

"For winter work in states like Maine, Massachusetts, and Vermont, I suggest that each Agent spend considerable time in those towns where he plans to carry on Ribes eradication work the next season. The first work in a town should be to get in touch with the town officials, prominent citizens etc. The Agent should also put up an exhibit in the postoffice or a local store, place posters, get articles in the local papers, give talks locally, distribute publications, etc. Then he would systematically interview all pine owners in the town, lining them up for cooperative control work. As he moves about the town, he can roughly sketch in the location of the white pine areas on suitable maps. When the town is completed, he should change his temporary headquarters to the next one. His mail could be addressed to his temporary headquarters, and about every two weeks he could get to his official station in order to maintain contacts with the Farm Bureau, etc. In addition, he could, when the occasion demanded, give talks at other places in his district, work with Boy Scouts, high school classes, etc. Conducting the work in this way would consume practically all his time to advantage on Blister Rust Control work."

Mr. Frost told of the use of the mails in winter work, doing much corresponding with pine owners, especially with old cooperators. Filler suggested form letters rather than individual letters. Corliss said that forgetting old friends and cooperators after their work was completed, is bad business, and agreed with Frost in emphasizing correspondence with former cooperators, in uncompleted towns especially. Amadon said that one New York district will not be manned all winter (Lewis County), the Agent will be moved to another district, temporarily. Movie shows and meetings are widely used in New York.

Endersbee told of window exhibits, posters, bulletin boards, etc.
Filler mentioned the possible use next spring, of sight-seeing tours in Blister
Rust educational work; arrangements are being made to have the bus drivers stop
at roadside demonstration areas and hand out publications or to have Agent place
exhibit in hotels where tourists stop. Radio talks were mentioned. Articles
on blister rust for the "Booster Column" in local papers was suggested. The
fall months were generally conceded to be the most effective and economical
period for conducting the bulk of such work as interviews and inspection of
pine woodlots. Mr. Ross stated that one Vermont agent plans to work outlying
sections in the fall and to visit such points in the winter as can be easily
reached by train or team. Mr. Tucker stated that one Connecticut agent secured
complete cooperation in two towns by travel on foot. Callward told of combined
sporting goods-blister rust exhbits planned by a Vermont Agent.

Amadon told of pines transplanted into a pan and producing blisters (aecia) as late as September. Fivaz suggested refrigeration of cankers that will fruit, cutting them or digging up the trees, in late winter or early spring, and forcing aecia production in water in time for fair and other exhibits.

### 5. The Blister Rust News Letter.

Discussion of the News Letter. Improvements in style and contents of recent issues was mentioned. Frost said it was difficult to find time to write. Filler suggested a new way of going after articles for News Letter, Mr. Pierce writing directly to the Agent suggesting subject, with some definiteness. This was favored, but careful choosing of subjects and allowing of leeway to Agent as to article was suggested. Also agent should send in article through State leader so that he can approve of it.

Meeting adjourned at 6:00 P. M. for supper.

## Evening Session

Mr. Newman introduced W. F. Hale, Assistant State Forester of New Hampshire, who spoke in place of Mr. Foster as sickness prevented his attending. Mr. Hale's remarks were confined to some of the problems in connection with the building and maintenance of mountain lookout stations and the acquisition and care of state lands. He related several interesting episodes of New Hampshire State Forestry work, telling especially of the acquiring of state forest lands. New Hampshire is buying cut over and "cheap" land in small blocks - as scattered as possible - located especially on roads where they can be used as demonstrations of management.

Mr. R. M. Ross, State Forester of Vermont was called on next. He also told of land acquisition and management. Vermont has more state land than New Hampshire, but it is not as well located. Mr. Ross is asking for \$15,000 annually for land buying, plans to get small tracts on roads, etc., as per New Hampshire plan, getting it under management for demonstration purposes. In regards to blister rust, Mr. Ross said that he believed that eventually, the Vermont cooperative plan of owner paying for all work would be adopted by other states. He stated that there are 14 state forests in Vermont, the smallest 70 acres, the largest 5000 acres. Mr. Amadon asked if there are any cutting restrictions on state forests. Mr. Ross replied that the laws

relative to the land were very liberal. A Ribes eradication clause will be put in the 1926 order blanks for trees, as in 1926 the Vermont State Nursery will have white pine three-year transplants for sale. Basswood and ash are being tried. Norway spruce in nursery, but Mr. Ross is not sure it will grow well in Vermont.

Mr. Newman introduced Walter H. Tripp, District Fire Chief of the Central District of New Hampshire, who has for a number of years been actively associated with the State Grange and has occupied a high official position in that organization. He spoke on the relation of the Blister Rust control forces and the Farm Bureau and Granges. There are about 300 granges in the state. If the Agents or any state forestry department men would interest the two men (master and lecturer) of each Grange in their particular field of Blister Rust Control or forestry, maximum results would be obtained. Every B. R. C. agent would benefit by belonging to the Grange, thus getting into closer touch with the Grange membership. If the State Grange lecturer could be induced to include in the schedule of work held up to subordinate Granges, a study of Blister Rust control, this project would reach most Granges, which vie with each other for program completion.

## 6. Development of Better Interviews.

Discussion was started on improvement of Agents' interview. Use of letters from state office before and after interview seemed favorable. Letters to cooperators for future moral support seemed favorable. Mr. Ross stated that in Vermont the Blister Rust agents sent in a list of pine owners whom they intended to interview and the Department at Montpelier sends out letters before the interviews are made and often after the interviews have taken place.

## 7. Program for Annual Conference.

Annual Conference was the next subject. Amadon suggested Boston for the location, February for the time, or at least after the first of the year. Earlier notice to men who are to read papers and better adaptation ef subjects to men to whom assigned, was also suggested. Up to Boston and Washington offices to work up program. Frost suggested Washington as the place, and also to have more talks by Washington people - Taylor, Metcalf, etc.the people higher up. Amadon said that Pettis is in favor of a consolidation of all cooperative meetings in Washington at one time - fire, gypsy moth, bliste rust, etc. - say holding a week's meeting and getting it all done in one trip. Sure of getting all Cooperators down for such a combined meeting, and the idea worth trying in Washington. Callward was favorable to Washington as a location. Newman agreed with the ideas expressed by Frost, and said that at the last Conference, Allanson's talk was particularly appreciated. More talks of such nature would break up the monotony of long meetings. Annual conference topics should be broader in application than at State Leaders' meetings and other lesse gatherings, the topics to be of interest also to the State Cooperators. Fer instance, such discussions as the best scouting method, checking method, etc., should be eliminated from the Annual Conference and saved for the State Leaders' meetings.

8. Blister Rust Short Courses at College.

Seminars at schools and colleges was another subject discussed.

The purpose of these to be to instruct students in Blister Rust Control work and needs, and to locate prospective Agents and other employees-to-be. Short courses at Vermont and in Maine for farmers (Farmers' Institutes) is a field that should be entered in this work. Amaden told of eradication school held last-spring, and of plans for Agentumeeting in Albany the week of October 20.

9. Annual Report.

Mr. Filler went over suggested outline, which follows:
See attached sheets A and B.)

Amadon suggested that the newworded B.R.E.2 forms not be used until January 1, to prevent confusion. Mr. Filler urged analysing report figures, and making use of them to better the work for next year.

Filler suggested sending all data on and specimens of pitch pine rust to Dr. Spaulding, who plans to publish an article this winter on that subject. Attention was called to the large wall map of New Hampshire, showing all areas eradicated in the state, colored by years. Reprints of "Management of Farm Woodlots" by Mr. Foster, N. H. State Forester, were distributed. Mr. Filler ask if there-were any complications in funds, none being brought up excepting by Amadon, who went over that with Dr. Martin.

Mr. Filler brought out that some Agents were confusing land eradicated with land eliminated, and explained that unless the Ribes were removed, or the land examined for Ribes and none found, that the land could not be classed as eradicated. Eliminated land is that which is not eradicated of Ribes because of lack of pine worth protecting.

Meeting adjourned at 10:00 P. M.

# Tuesday, October 14, 1924:

The entire party motored to the headquarters of the White Mountain National Forest, at Gorham, N.H., where Mr. Ira T. Yarnell, Forest Supervisor, told us something of the work on the White Mountain National Forest and furnished us with maps and descriptive circulars.

He said that purchases of land were still continuing, within the boundaries originally marked out for the District. Eventually, it is hoped that twice the present area will be secured. There are now 4 Ranger Districts. About 12 temporary men are employed in addition to the Rangers in charge of each, from May 1 to October 30, on fire protection. There is close cooperation with the Stateg (New Hampshire and Maine) and towns in fire work.

There is over a billion feet of timber on the forest now, not all mature. Can cut 20 million feet per year on sustained yield. Hope to work this up eventually to 65 million feet annually, on the same area. Now the cutting is mostly overmature timber, and some mature timber. Cutting restrictions are included in the sale contracts to provide for future stand. The last two years, the hardwood market has opened up.

The forest is divided into 13 working circles, approved plans for seven are complete, each will be put on sustained yield basis. In the plans the timber is classified into twenty year age classes. Unequal distribution of area in classes make further selection necessary.

The first timber sale was in 1915. This year the cut was over seven million feet (largest to date). Sales demand much work. A 20% cruise must be made, an estimate of the cost of operating and of the value of the logs must be figured, and the stumpage value computed. Sales are advertised for 30 days.

Recreational uses are also important. 700,000 people spend their vacation in these mountains. The Forest Service has over 300 miles of trails, the Appalachian Mountain Club has about the same amount, and other clubs have some also. The Service builds trails, and maintains them, also shelters. Certain areas are set aside in the management plans, on which areas no timber will be sold, but will be reserved for recreational purposes. Public sentiment also enters into the management plans, timber is left along streams, etc., where cutting might be criticised.

The only condemnation of land is friendly condemnation, for the purpose of getting clear title. On one occasion only has true condemnation been done, and that was a special case, for game protection.

Hardwood portable mills are increasing hardwood demand. The tie market is also improved, the opening of the Nashua treating plant increasing amount of hardwood used for this purpose. Increase in bobbin industry has also helped the hardwood market.

The fuel wood market in town of Bartlett is particularly interesting The stumpage is sold at \$1.50 per cord to small purchasers, of which there are over 300. This started during the war, when cordwood was at a premium, and the work was engaged in as a community enterprise, among the railroad men who make up that community. Fifteen hundred cords are sold annually. Trees to be cut are selected, and perfect utilization is attained. This is an ideal way of handling, but of course it is on a small basis.

The Service has a small nursery here, but only a little planting is done because the Forest Service policy is to concentrate first on those forests that need it the worst. About 30,000 to 50,000 trees are grown annually.

Probably only a third of the forest is in softwoods, the balance in hardwoods. Mr. Yarnell answered all questions asked, and furnished a good outline of the Forest Service work on the White Mountain National Forest.

Mr. Black, now with the Service, but formerly employed on the blister rust control work in Massachusetts, gave a summary of the control work done during the past season on the forest. Eradication was completed in the Swift River Valley, and work was laid out for next year. Skunk currants are most numerous, gooseberries next, and triste and lacustre last. 20,454 acres were examined at an average cost of  $7 \phi$  per acre. This includes both crew and scout work.

After a very substantial dinner at Mount Madison House, the party proceeded to Berlin, N.H., where we were shown through the paper mills of the Brown Company by Mr. Libby. The trip through this plant was very interesting and instructive.

This ended the meeting, some of the men returning to Chiswick Inn for work on a new Blister Rust Control film.

October 18, 1924 Littleton, N. H. A.E. Fivaz Acting Secretary en de la companya de la co La companya de la companya del companya del companya de la companya del la companya de la companya

Outline for the 1924 Annual State Report of Cooperative Blister Rust Control Work.

The annual state report of blister rust control work will consist of four parts:-

- I. A compilation of the educational, service and eradication work by districts. (The state leader to submit form B.R.E.-3 a or B.R.E. 3's for each agent. If the latter, it will only be necessary to have the agents fill out the miscellaneous data and the summary of eradication work. The other items will be entered at the Boston Office. Such B.R.E.-3 forms should be sent to the Boston Office at earliest possible date.)
- II. Financial Statement BRE 4 F.
- III. State map showing by years, all Ribes eradication areas including 1924.
- IV. Written report as outlined below -
  - A. Analysis of statistical summary of control work.
    - 1. Hours worked by the agents
    - 2. Educational work ("General" education)
    - 3. Service Work (Formerly "Intensive Education")
      - a. Interviews & follow-up calls
      - b. Individual instruction
    - 4. Cooperative Ribes eradication work
      - a. With individual With and without supervision
      - b. With towns
      - c. Scouting for Ribes paid by state
    - 5. Checking Ribes eradication
      - a. State Checker
      - b. Agent checks
      - c. Crew checks

- 6. Compensation
- 7. Ribes eradication on public lands
- 8. Recommendations
- B. Analysis of Financial Report BRE 4 F
  - 1. State Blister Rust funds
  - 2. State and federal expenditures by projects
  - 3. Classification of funds used in Ribes eradication

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- 4. Wage scale
- 5. Recommendations
- C. Analysis of Miscellaneous items
  - 1. Cooperation with extension forces
  - 2. Basis of local cooperation

    Individual Towns
  - 3. Organization and training of eradication forces
  - 4. Organization Personnel
  - 5. Infection conditions on Ribes and pine giving statistics
    that can be used to show spread of disease, pine damage, etc.
  - 6. General recommendations
- D. Discussion of any other matters of present or future importance to the progress of the cooperative blister rust control work.